How Health Care is Organized—II

6

The last chapter explored some general principles of health care organization, including levels of care, regionalization, physician and other practitioner roles, and patient flow through the system. This chapter looks more closely at actual structures of medical practice.

The traditional dispersed model of US medical practice has often been referred to as a "cottage industry" of independent private physicians working as solo practitioners or in small groups. A number of alternative organizational forms have existed in the United States, ranging from community health centers to prepaid group practices. The traditional model is in competition with a system of larger practice organizations and networks structured along a more integrated model of health care delivery.

THE TRADITIONAL STRUCTURE OF MEDICAL CARE

Physicians and Hospitals

Dr. Harvey Commoner finished his residency in general surgery in 1956. For the next 30 years, he and another surgeon practiced medicine together in a middle-class suburb near St. Peter's Hospital, a nonprofit church-affiliated institution. Dr. Commoner received most of his cases from general practitioners and internists on the St. Peter's medical staff. By 1965, the number of surgeons operating at St. Peter's had grown. Because Dr. Commoner was not getting enough cases, he and his partner joined the medical staff of Top Dollar Hospital, a for-profit facility 3 miles away, and University Hospital downtown. On an average morning, Dr. Commoner drove to all three hospitals to perform operations or to do postoperative rounds on his patients. The afternoon was spent seeing patients in his office. He was on call every other night and weekend.

Dr. Commoner was active on the St. Peter's medical staff executive committee, where he frequently proposed that the hospital purchase new radiology and operating room equipment needed to keep up with advances in surgery. Because the hospital received hundreds of thousands of dollars each year for providing care to Dr. Commoner's patients, and because Dr. Commoner had the option of admitting his patients to Top Dollar or University, the St. Peter's administration usually purchased the items that Dr. Commoner recommended. The Top Dollar Hospital administrator did likewise.

During the period when Dr. Commoner was practicing, most medical care was delivered by fee-for-service private physicians in solo or small group practices. Most hospitals were private nonprofit institutions, sometimes affiliated with a religious organization, occasionally with a medical school, often run by an independent board of trustees composed of prominent people in the community. Most physicians in traditional fee-for-service practice were not employees of any hospital, but joined one or several hospital medical staff, thereby gaining the privilege of admitting patients to the hospital and at times acquiring the responsibility to assist the hospital through work on medical staff committees or by caring for emergency department patients who have no physician.

For many years, the physicians were the dominant power in the hospital, because physicians admit the patients, and hospitals without patients have no income. Because physicians were free to admit their patients to more than one hospital, the implicit threat to take their patients elsewhere gave them influence. Under traditional fee-for-service medicine, physicians used informal referral networks, often involving other physicians on the same hospital medical staff. In metropolitan areas with a high ratio of physician specialists to population, referrals could become a critical economic issue. Most surgeons obtained their cases by referral from primary care physicians (PCPs) or medical specialists; surgeons like Dr. Commoner who were not readily available when called soon found their case load drying up.

THE SEEDS OF NEW MEDICAL CARE STRUCTURES

The dispersed structure of independent fee-for-service private practice was not always the dominant model in the United States. When modern medical care took root in the first half of the twentieth century, a variety of structures blossomed. Among these were multispecialty group practices, community health centers, and prepaid group practices. Some of these flourished but then wilted, while others became the seeds from which the future health care system of the twenty-first century may germinate.

Multispecialty Group Practice

In 1905, Dr. Geraldine Giemsa joined the department of pathology at the Mayo Clinic. The clinic, led by the brothers William and Charles Mayo, was becoming a nationally renowned referral center for surgery and was recruiting pathologists, microbiologists, and other specialized diagnosticians to support the work of the clinic's group of surgeons. Dr. Giemsa received a salary and became an employee of the group practice. With time, she became a senior partner and part owner of the Mayo Clinic.

Together with their father, the Mayo brothers, who were general practitioners skilled at surgical techniques, formed a group practice in the small town of Rochester, MN, in the 1890s. As the brothers' reputation for clinical excellence grew, the practice added several surgeons and physicians in laboratory-oriented specialties. By 1929, the Mayo Clinic had more than 375 physicians and 900 support staff (Starr, 1982). Although the clinic paid its physician staff by salary, the clinic itself billed patients, and later third-party insurance plans, on a fee-for-service basis. The Mayo Clinic was the inspiration for other group practices that developed in the United States, such as the Menninger Clinic in Topeka, KS, and the Palo Alto Medical Foundation in California. These clinics were owned and administered by physicians and featured physicians working in various specialties—hence the common use of the term *multispecialty group practice* to describe this organizational model. As in the case of the Mayo Clinic, these multispecialty group practices were innovative in the manner in which they brought large number of physicians together under one roof to deliver care.

By formally integrating specialists into a single clinic structure, group practice attempted to promote a collaborative style of care. Lacking a strong role for the PCP as coordinator of services, the specialty-oriented group practice model attempted to use the structure of the practice organization itself as a means of creating an environment for coordinated care among specialist physicians. Enhancement of quality of care was also expected from the greater opportunity for formal and informal peer review and continuing education when colleagues worked together and shared responsibility for the care of patients. Critics of group practice warned that large practice structures would jeopardize the intimate patient–physician relationship possible in a solo or small group setting, arguing that large groups would subject patients to an impersonal style of care with no single physician clearly accountable for the patient's welfare.

In 1932, the blue ribbon Committee on the Costs of Medical Care recommended that the delivery of care be organized around large group practices (Starr, 1982). The eight physicians in private practice who were members of the committee dissented from the recommendations, roundly criticizing the sections on group practice. An editorial in the *Journal of the American Medical Association* was even more scathing in its attack on the committee's majority report:

> *The physicians of this country must not be misled by utopian fantasies of a form of medical practice, which*

would equalize all physicians by placing them in groups under one administration. The public will find to its cost, as it has elsewhere, that such schemes do not answer that hidden desire in each human breast for human kindliness, human forbearance, and human understanding. It is better for the American people that most of their illnesses be treated by their own physicians rather than by industries, corporations, or clinics (The Committee on the Costs of Medical Care, 1932).

Several multispecialty group practices flourished during the period between the world wars, and to this day remain among the most highly regarded systems of care in the United States. Yet multispecialty group practice did not become the dominant organizational structure. In part, resistance to this model by professional societies blunted the potential for growth. In addition, as hospitals assumed a central role in medical care, group practice lost some of its unique attractions. Hospitals could provide the ancillary services physicians needed for the increasingly specialized and technology-dependent work of medicine. Hospitals also served as an organizational focus for the informal referral networks that developed among private physicians in independent practice.

Community Health Centers

One of the most far-reaching alternatives to fee-for-service medical practice is the community health center, one of whose goals is to practice community-oriented primary care (see Chapter 5), taking responsibility for the health status of the entire community served by the health center. One example of such an institution was the Greater Community Association at Creston, IA. The association brought together civic, religious, education, and health care groups in a coordinated system centered on the community hospital serving a six-county area with 100,000 residents. The plan placed its greatest emphasis on preventive care and public health measures administered by public health nurses. In describing the association, Kepford AE (1919) wrote:

The motto of the Greater Community Association is "Service." Among the principles of the hospital management are the precept that it shall be a long way from the threshold of the hospital to the operating room . . . We have a hospital that makes no attempt to pattern after the great city institutions, but is organized to meet the needs of a rural neighborhood. The Greater Community Association has been taught to regard the hospital as a repair shop, necessary only where preventive medicine has failed (Kepford, 1919).

In 1928, Sherry Kidd joined the Frontier Nursing Service in Appalachia as a nurse midwife. For $5 per year, families could enroll in the service and receive pregnancy-related care. Sherry was responsible for all enrolled families within a 100-mile radius. She referred patients with complications to an obstetrician in Lexington, KY, who was the service's physician consultant.

The Frontier Nursing Service was established by Mary Breckinridge, an English-trained midwife, in 1925 (Dye, 1983). Breckinridge designed the service to meet the needs of a poor rural area in Kentucky that lacked basic medical and obstetric care and suffered from high rates of maternal and infant mortality. The Frontier Nursing Service shared many of the features of the Creston, IA, model: regionalized services planned on a geographic basis to, serve rural populations, with an emphasis on primary care and health education. Like the Creston system, the service relied on nurses to provide primary care, with physicians reserved for secondary medical services on a referral basis.

These rural programs had their urban counterparts in health centers that focused on maternal and child health services during the early 1900s (Rothman, 1978; Stoeckle and Candib, 1969). The clinics primarily served populations in low-income districts in large cities and were often involved with large immigrant populations. As in the rural systems, public health nurses played a central role in an organizational model geared toward health education, nutrition, and sanitation. Both the urban and rural models of community health centers waned during the middle years of this century. Public health nursing declined in prestige as hospitals became the center of activity for nursing education and practice (Stevens, 1989). A team model of nurses working in collaboration with physicians withered under a system of hierarchical professional roles.

The community health center model was revived in 1965, when the federal Office of Economic Opportunity, the agency created to implement the "War on Poverty," initiated its program of neighborhood health centers. The program's goals included the combining

of comprehensive medical care and public health to improve the health status of defined low-income communities, the building of multidisciplinary teams to provide health services, and participation in the governance of the health centers by community members.

Dr. Franklin Jefferson was professor of hematology at a prestigious medical school. His distinguished career was based on laboratory research, teaching, and subspecialty medical practice, with a focus on sickle cell anemia. Dr. Jefferson felt that his work was serving his community, but that he would like to do more. In 1965, with the advent of the federal neighborhood health center program, he left his laboratory in the hands of a well-trained assistant and began to talk with community leaders in the poor neighborhood that surrounded the medical school. After a year, the trust that was developed between Dr. Jefferson and members of the neighborhood bore fruit in a decision to approach the medical school dean about a joint medical school–community application for funds to create a neighborhood health center. Two years later, the center opened its doors, with Dr. Jefferson as its first medical director.

By the early 1980s, 800 neighborhood health centers were in operation in the United States. Some were run by hospitals, medical schools, or local public health departments, and many were controlled by community groups, often with boards elected by the neighborhood or by the patients enrolled in the health center. Many of the centers trained community members as outreach workers, who became members of health care teams that included public health nurses, physicians, mental health workers, and health educators. Some of the health centers made a serious attempt to meld clinical services with public health activities in programs of community-oriented primary care. For example, the rural health center in Mound Bayou, MS, helped to organize a cooperative farm to improve nutrition in the county, dig wells to supply safe drinking water, and train community residents to become health professionals.

The neighborhood health centers made important contributions. By improving the care of low-income ambulatory patients, the centers were able to reduce hospitalization and emergency department visits by their patients. Neighborhood health centers also had some success in improving community health status, particularly by reducing infant and neonatal mortality rates among African Americans (Geiger, 1984).

Despite these successes, during the 1980s neighborhood health centers fell out of favor politically, and funding was deemphasized by the federal government. Consequently, health centers were forced to generate income through billing of patients and insurers (chiefly Medicare and Medicaid). Yet the energy and commitment of health care organizers around the nation transformed hundreds of community health centers (neighborhood health centers, rural migrant worker clinics, homeless clinics, and clinics for immigrant populations) into fiscally viable "safety net" organizations (O'Malley et al., 2005). In 2006, more than 900 community health centers at 3000 sites were serving 15 million people, many of them without health insurance.

Prepaid Group Practice and Health Maintenance Organizations

Historically, one alternative to small office-based, fee-for-service practice became the major challenge to that traditional model: prepaid group practice, one of the models upon which the modern HMO is based.

In 1929, the Ross–Loos Clinic began to provide medical services for employees of the Los Angeles Department of Water and Power on a prepaid basis. By 1935, the clinic had enrolled 37,000 employees and their dependents, who each paid $2 per month for a specified list of services. Also in 1929, an idealistic physician, Dr. Michael Shadid, organized a medical cooperative in Elk City, OK, based on four principles: group practice, prepayment, preventive medicine, and control by the patients, who were members of the cooperative. In the late forties, more than a hundred rural health cooperatives were founded, many in Texas, but they tended to fade away, partly from the stiff opposition of organized medicine. In the 1950s, another version of the consumer-managed prepaid group practice sprang up in Appalachia, where the United Mine Workers established union-run group practice clinics, each receiving a budget from the union-controlled, coal industry-financed medical care fund. Meanwhile, the Group Health Association of Washington, DC, had been organized in 1937 as a prepaid group practice whose board was elected by the cooperative's membership. A few years later in Seattle,

Group Health Cooperative of Puget Sound acquired its own hospital, began to grow, and by the mid-1970s had 200,000 subscribers, a fifth of the Seattle-area population. In 1947, the Health Insurance Plan of New York opened its doors, operating 22 group practices; within 10 years, Health Insurance Plan's enrollment approached 500,000 (Starr, 1982).

The most successful of the prepaid group practices that emerged in the 1930s and 1940s was the Kaiser Health Plan. In 1938, a surgeon named Sidney Garfield began providing prepaid medical services for industrialist Henry J. Kaiser's employees working at the Grand Coulee Dam in Washington State. Rather than receiving a salary from Kaiser, Garfield was prepaid a fixed sum per employee, a precursor to modern capitation payment. Kaiser transported this concept to 200,000 workers in his shipyards and steel mills on the West Coast during World War II (Starr, 1982; Garfield, 1970). In this way, company-sponsored medical care in a remote area gave birth to today's largest alternative to fee-for-service practice. Kaiser opened its doors to the general public after World War II. By 1997, Kaiser had facilities in many US cities and had enrolled more than 8 million people.

The contemporary systems that grew out of the Kaiser and consumer cooperative models share several important features. Rather than preserving a separation between insurance plans and the providers of care, these models attempt to meld the financing and delivery of care into a single organizational structure. Paying a premium for health insurance coverage in this approach does not just mean that a third-party payer will reimburse some or all the costs of care delivered by independent practitioners. Rather, the premium serves to directly purchase, in advance, health services from a particular system of care. This is the notion of "prepaid" care that is one component of the prepaid group practice model. (As discussed in Chapter 2, the Baylor Hospital plan in the 1930s was a parallel attempt to develop a model of prepaid hospital care.) The second component is care delivered by a large group of practitioners working under a common administrative structure—the "group practice" aspect of prepaid group practice.

Systems such as Kaiser and Group Health Cooperative of Puget Sound were commonly referred to as prepaid group practices until the 1970s, when terminology underwent a transformation as part of a political effort to sell the public and Congress on this model of care as a centerpiece of health care reform under the Nixon administration. Paul Ellwood, a Minnesota physician and advisor to the Nixon administration, suggested that prepaid group practices be referred to as "health maintenance organizations" (Ellwood et al., 1971; Starr, 1982). This change in name was intended in part to break from the political legacy of the prepaid group practice movement, a legacy colored with populist tones from the cooperative plans and tainted by organized medicine's common criticism of prepaid group practice as a socialist threat. The term *health maintenance* was also designed to suggest that these systems would place more emphasis on preventive care than had the traditional medical model. Although HMOs were initially synonymous with prepaid group practice, by the 1980s several varieties of HMO plans emerged that departed from the prepaid group practice organizational form. We describe the Kaiser model to fully illustrate the first-generation HMO model, and then proceed to discuss the second-generation HMOs known as independent practice associations (IPAs) or network HMOs.

FIRST-GENERATION HEALTH MAINTENANCE ORGANIZATIONS AND VERTICAL INTEGRATION: THE KAISER–PERMANENTE MEDICAL CARE PROGRAM

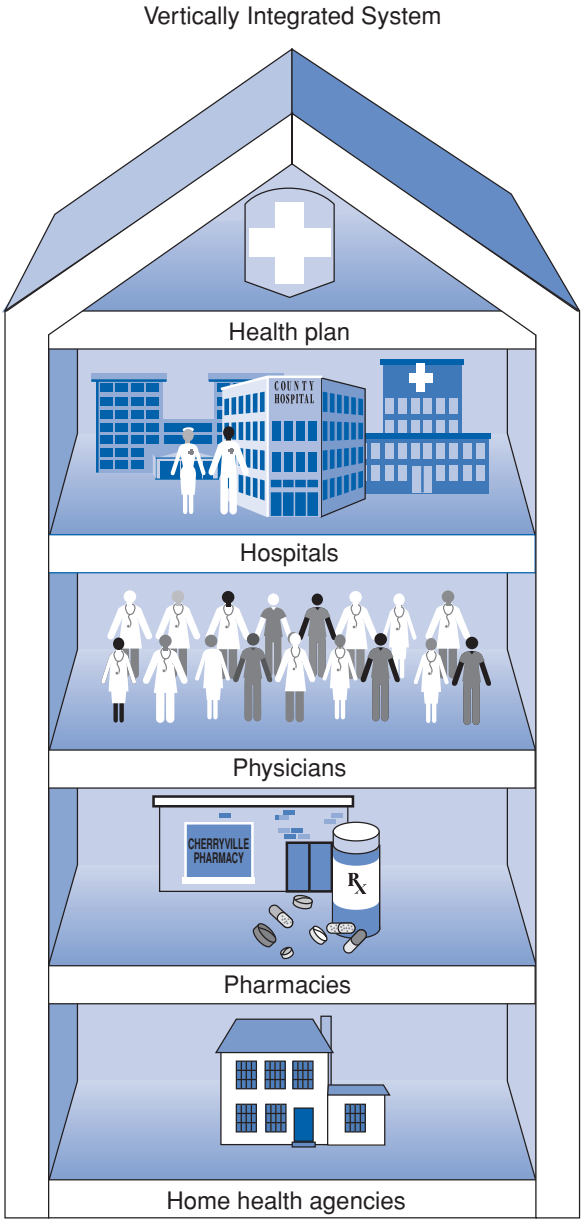
Mario Fuentes was a professor at the University of California. He and his family belonged to the Kaiser Health Plan, and the university paid his family's premium. Professor Fuentes had once fractured his clavicle, for which he went to the urgent care clinic at Kaiser Hospital in Oakland; otherwise, he had not used Kaiser's facilities. Mrs. Fuentes suffered from rheumatoid arthritis; her regular physician was a salaried rheumatologist at the Permanente Medical Clinic, the group practice in which Kaiser physicians work. One of the Fuentes' sons, Juanito, had been in an automobile accident a year earlier near a town 90 miles away from home. He had been taken to a local emergency department and released; Kaiser had paid the bill because no Kaiser facility was available in the town. Three days after returning home, Juanito developed a severe headache and became drowsy; he was taken to the urgent care clinic, received a CT scan, and was found to have a subdural hematoma. He was immediately transported to Kaiser's regional neurosurgery center in Redwood City, CA, where he underwent surgery to evacuate the hematoma.

Dr. Roberta Short had mixed feelings about working at Kaiser. She liked the hours, the salary, and the paucity of administrative tasks. She particularly liked working in the same building with other general internists and specialists, providing the opportunity for frequent discussions on diagnostic and therapeutic problems. However, she was not happy about seeing 4 or 5 patients per hour. Such a pace left little time to talk to the patients or to make important phone calls to patients or specialists. It was tough for Dr. Short's patients to get appointments with her, and it was even harder to arrange prompt appointments with specialists, who were as busy as she was. Moreover, the rules for ordering magnetic resonance imaging scans and other expensive tests were strict, though by and large reasonable. Overall, Dr. Short felt that the Kaiser system worked well but needed more physicians per enrolled patient.

The Kaiser–Permanente Medical Care Program is the largest of the nation's prepaid group practice HMOs, consisting of three interlocking administrative units:

1. The Kaiser Foundation Health Plan, which performs the functions of health insurer, such as administering enrollment and other aspects of the financing of care.
2. The Kaiser Foundation Hospitals Corporation, which owns and administers Kaiser hospitals (the same individuals sit on the boards of directors for the Health Plan and the Hospitals Corporation).
3. Permanente medical groups, the physician organizations that administer the group practices and provide medical services to Kaiser plan members under a capitated contract with the Kaiser plan.

The organizational model typified in the Kaiser–Permanente HMO has come to be known as vertical integration. *Vertical integration* refers to consolidating under one organizational roof and common ownership all levels of care, from primary to tertiary care, and the facilities and staff necessary to provide this full spectrum of care (Figure 6–1). Although structures differ somewhat across Kaiser's regional health plans, most Kaiser–Permanente regional units own their hospitals and clinics, hire the nurses and other personnel staffing these facilities, and contract with a single large group practice (Permanente) to exclusively serve patients covered by the Kaiser health plan.



▲ **Figure 6–1**. Vertical integration consolidates health services under one organizational roof.

The Kaiser form of HMO differs from traditional fee-for-service models in how it pays physicians (salary) and hospitals (global budget). It also differs in how health services are organized. Most obvious is the

prepaid group practice structure that contrasts with the traditional US style of solo, independent private practice. In addition, Kaiser has typically regionalized tertiary care services at a select number of specialized centers. For example, Northern California Kaiser has centralized all neurosurgical care at only two hospitals; patients with spinal cord injuries, brain tumors, and other neurosurgical conditions are referred to these centers from other Northern California Kaiser hospitals. The distribution of specialties within the physician staff in The Permanente Medical Group is approximately half generalists and half specialists. Most regions have also integrated nonphysicians, such as nurse practitioners and physician assistants, into the primary care team.

Many observers consider this ability to coherently plan and regionalize services to be a major strength of vertically integrated systems (Figure 6–1). Unlike a public district health authority in the United Kingdom, an HMO such as Kaiser–Permanente is not responsible for the entire population of a region, but these private, vertically integrated systems in the United States do assume responsibility for organizing and delivering services to a population of plan enrollees. The prepaid nature of enrollment in the Kaiser plan permits Kaiser to orient its care more toward a population health model.

SECOND-GENERATION HEALTH MAINTENANCE ORGANIZATIONS AND "VIRTUAL INTEGRATION": INDEPENDENT PRACTICE ASSOCIATIONS

The phone rang at 3:15 AM. It was the emergency department. "We have a Good Health IPA patient named Buster with a severe leg injury. Can you authorize the visit?" Dr. Monica Byrne was hot under the collar. It happened every night she was on call. Stupid requests from the emergency department asking permission to see a patient who obviously needed to be seen. At 3:45 AM the emergency department called again. "Buster has a displaced tibia fracture. Which orthopedist do you want?" "I don't know," seethed Dr. Byrne, "it depends who's on the Good Health referral list. I don't sleep with the list under my pillow. Get anyone. We'll sort it out in the morning."

Dr. Byrne's troubles were not over. Buster called at 6 AM. "The orthopedist I saw last night isn't on my Good Health list. What should I do?" The office manager of Dr. Byrne's primary care practice spent 2 hours that morning getting approval from Good Health IPA for the non-IPA orthopedic emergency department consultation, calling four Good Health orthopedists before finding one who would see Buster that day, and getting on the phone to Good Health and Buster seven more times for the proper urgent authorizations and patient instructions. As Dr. Byrne said to her 7-year-old at dinner that night, "A child could figure out a better system than this."

In 1954, the medical society in San Joaquin County, CA, fretted about the possibility of Kaiser moving into the county. Private fee-for-service patients might go to the lower cost Kaiser, and physicians' incomes would fall. An idea was born: To compete with Kaiser, the San Joaquin Foundation for Medical Care was set up to contract with employers for a monthly payment per enrollee; the foundation would then pay the physicians on a discounted fee-for-service basis and conduct utilization review to discourage overtreatment (Starr, 1982). It was hoped that the plan would reduce the costs to employers, who would choose the foundation rather than Kaiser. The San Joaquin Foundation for Medical Care was the first IPA.

When the Health Maintenance Organization Act of 1973 was enacted into law as the outcome of President Nixon's health care reform strategy, IPA-model HMOs were included along with prepaid group practice as legitimate HMOs. The HMO law stimulated HMO development by requiring large- and medium-sized businesses that provided health insurance to their employees to offer at least one federally qualified HMO as an alternative to traditional fee-for-service insurance if such an HMO existed in the vicinity (Starr, 1982). IPA-model HMOs were far easier to organize than prepaid group practices; a county or state medical society, a hospital, or an insurance company could simply recruit the office-based, fee-for-service physicians practicing in the community into an IPA, and thereby create the basis for an HMO. The physicians could continue to see their non-IPA patients as well. The inclusion of the IPA form of HMO in the 1973 legislation ensured that the HMO movement would not produce rapid alterations in the traditional mode of delivering medical care.

Some of the initial IPA-model HMOs were organized on the two-tiered payment model described in Chapter 4. Under this model, an HMO contracts

with many individual physicians to care for HMO enrollees. Some IPA-model HMOs have evolved into models that use a three-tiered payment structure whereby the HMO does not contract directly with individual physicians but rather with a large group of physicians. These groups may take several forms. One form, the IPA, refers to a network of physicians that agree to participate in an association for purposes of contracting with HMOs and other managed care plans. Physicians maintain ownership of their practices and administer their own offices. The IPA serves as a vehicle for negotiating and administering HMO contracts.

Unlike the "monogamous" arrangement between each Kaiser region and its respective Permanente medical group, physicians can establish contractual relationships with numerous HMOs and IPAs. The result of this more open HMO–physician relationship is a series of physician panels in the same community that overlap partially, but not completely, for patients covered by different HMOs.

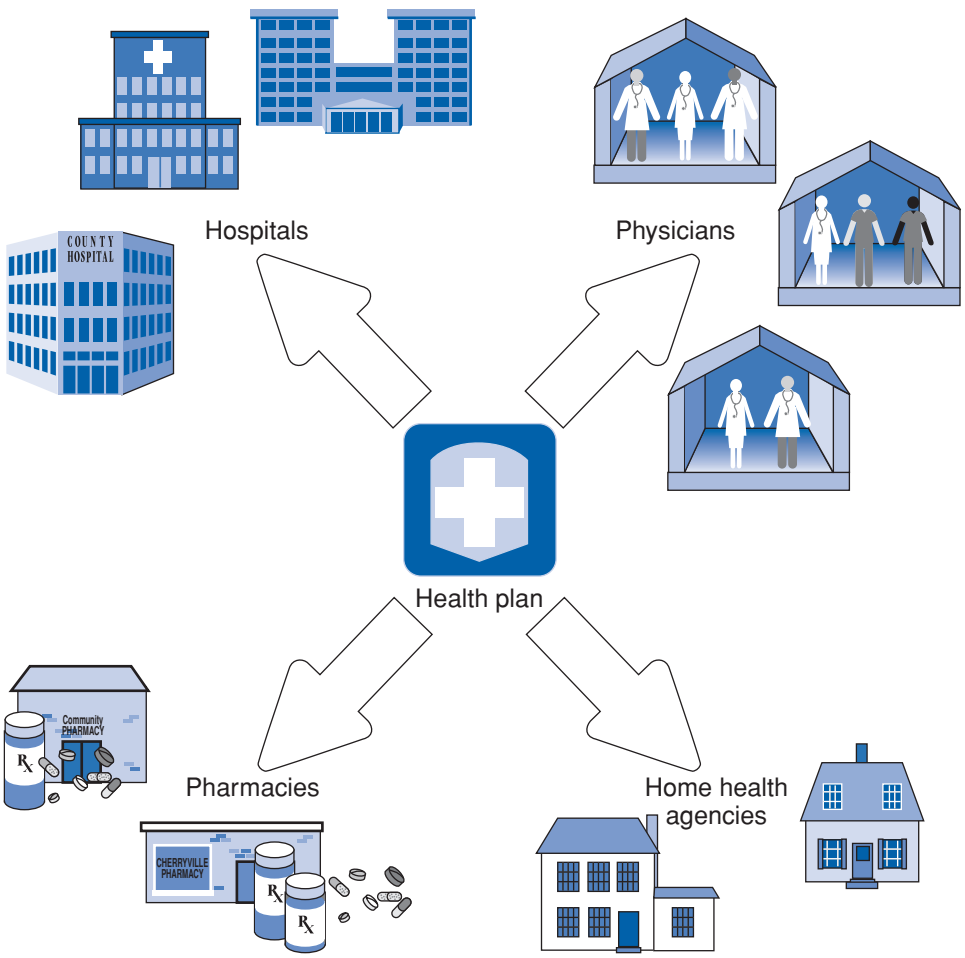
IPAs initially did little more than to act as brokers between physicians and HMOs, replacing the need for physicians to negotiate contracts on an individual basis. During the 1980s and 1990s, some IPAs assumed a larger portion of financial risk for care (see Chapter 4), and have developed a more active role in authorizing utilization of services, assessing quality of care, and deciding which physicians may participate in the IPA. In contrast with the prepaid group practice model of HMO, the IPA model creates the types of frustrating experiences encountered by Dr. Byrne. A PCP, who may see patients from several HMOs and participate in more than one IPA, often finds that a specialist or hospital participates in the physician panel for one HMO or IPA but not another, causing disruption and confusion when it comes to figuring out which specialist or hospital is eligible to accept a referral (Bodenheimer, 2000). Some IPAs use the gatekeeper concept described in Chapter 5, requiring patients to sign up with a PCP who must initiate and coordinate patient's all medical care. The gatekeeper role in contemporary managed care organizations in the United States has tended to emphasize the PCP as an instrument of cost containment, with financial incentives to act more as a "gateshutter" than as a coordinator who can facilitate access to needed specialty services and promote coordination and continuity of care.

Another structure related to second-generation HMOs is the integrated medical group. Integrated medical groups have a tighter organizational structure than IPAs, consisting of groups in which physicians no longer own their practices and office assets, but become employees of an organization that owns and manages their practice. Some modern-day integrated groups are survivors of the original breed of multispecialty group practices, such as the Mayo Clinic and Palo Alto Medical Foundation described earlier. Others lack these clinics' historical genesis and consist of new organizations created in the managed care era. Some of these newer organizations were created by large, for-profit companies buying up the practices of formerly independent physicians and hiring these same physicians to work as employees of the medical group (Robinson and Casalino, 1996). Similar to IPAs, integrated medical groups contract with multiple managed care plans.

IPAs and integrated medical groups represent an alternative to the vertically integrated HMO. As shown in Figure 6–2, managed care relationships involving IPAs and medical groups consist of a network of contractual links between HMOs and autonomous physician groups, hospitals, and other provider units, rather than the "everything-under-one-roof" model of vertical integration. Observers have dubbed the network forms of managed care organization "virtual integration," signifying an integration of services based on contractual relationships rather than unitary ownership (Robinson and Casalino, 1996). In these virtually integrated systems, HMOs do not directly provide health services through their own hospitals and physician organizations.

For many years, policy analysts predicted that the organizational efficiency and coherence of vertically integrated, first-generation HMOs would position these systems of care to prevail as health care entered a more competitive era. These predictions have not come true, as enrollment in virtually integrated systems has surpassed that of traditional HMOs.

In response to the reluctance of many patients to be locked into a limited panel of physicians and hospitals in conventional HMO plans, insurers have developed a variety of products, such as the Preferred Provider Organization (PPO), which allow patients to see physicians not in the insurer's physician network, with the stipulation that patients pay a higher share of the cost out of pocket when they use non-network physicians



▲ **Figure 6–2.** Virtual integration involves contractual links between HMOs and physician groups, hospitals, and other provider units.

and hospitals. Physicians joining the PPO network agree to accept discounted fees from the health plan with the hope that being listed as a "preferred" provider will attract more patients to their practice. In 2006, 60% of people covered by employer-based insurance were enrolled in PPOs, up from 28% in 1996. During those years, the percent enrolled in HMOs dropped from 31% to 20% (Claxton, 2006).

WILL MANAGED CARE CREATE PRIMARY CARE–BASED REGIONALIZED MEDICAL CARE?

Tensions have been intensifying between medical practices as a "cottage industry" of small, independent providers and the integrated form of practice based on larger systems of care. Integrated organizations may range from a community health center staffed by a dozen health professionals to an HMO with thousands of employees and ownership of several hospitals, to even the entirety of the British National Health Service (NHS). One of the fundamental concerns with integrated models of medical care is that small may be better when it comes to delivering a personal service such as health care. Among the most valued features of quality health care is the relationship between an individual caregiver and a patient. Fears abound that as health care becomes organized into larger entities, care will become more

impersonal. Clinic and HMO switchboard operators and voicemail systems may replace the familiar receptionist at the end of the line when a family calls about a child with a fever. Once the call is answered, the child may then be scheduled with the urgent care "doc of the day" instead of with the family's personal physician.

Sociologist David Mechanic (1976) captured some of the trade-offs that may occur as systems move into larger organizational structures such as HMOs:

> *HMOs can be thought of as large chain stores, like Sears, Penneys, or Wards, that market medical services rather than consumer goods. As their customers know, there are advantages and disadvantages to shopping at chain stores. Customers feel some confidence that such stores sell products at prices that are generally competitive. Moreover, many different products can be purchased at the same location . . . Nevertheless, it is often difficult to find store personnel to ring up a sale, salespersons tend to be ignorant about the products they market, and consumers may waste some time and experience frustration (Mechanic, 1976).*

The department store criticism is not without some justification. Studies of patient preferences have found that satisfaction is highest when care is received in small offices rather than larger clinic structures (Rubin et al., 1993). A study found that patients gave higher ratings to fee-for-service, office-based physicians than to prepaid group practice HMOs and IPA plans with regard to accessibility, continuity, and comprehensiveness of care (Safran et al., 1994). However, physicians in prepaid group practices appear to be moving much more quickly than physicians in IPAs and small "cottage industry" practices to adopt contemporary tools for quality improvement, such as more structured systems for planning and following through on care of patients with diabetes and other chronic illnesses (Rittenhouse et al., 2004). For physicians, more organized systems of care offer the benefit of more regular work hours and less hassle with the business of medicine, but at the expense of loss of control over the conditions of one's work and the opportunity to be one's own boss.

Chapter 5 depicted the British NHS as an organizational model that typifies a primary care–based regionalized structure of health care (see also Chapter 14). Although not without its troublesome bureaucratic aspects, the NHS has in many ways minimized the department store ambiance by providing primary care through small, decentralized groups of general practitioners and other caregivers for the first tier of care.

Tremendous tensions remain in the United States between the drive toward organized systems of care and the preservation of a dispersed health care cottage industry. By the turn of the twenty-first century, enthusiasm for more integrated systems of care in the United States was waning. Not only were vertically integrated HMOs losing ground to virtually integrated network HMO models, but enrollment in PPO plans was outpacing enrollment in all forms of HMOs. A consumer and health professional backlash against restrictive forms of managed care run by commercial interests was pushing the United States back toward a more dispersed organizational model. Questions remain about whether this trend heralds a return to what in Chapter 5 we cited as the "fragmentation, chaos, and disarray" that some observers had attributed to the traditional US system, or whether a more coherent model of care may still emerge in the United States. Amidst the turbulence of the current health system, will the United States make progress in developing the positive principles of health care organization elaborated in Chapter 5?

Will patients be cared for at the proper level of care—primary, secondary, and tertiary? Will the flow of patients among these levels be constructed in an orderly way within each geographic region—a regionalized structure? Will a sufficient number of primary care providers—generalist physicians, physician assistants, and nurse practitioners—be available so that everyone in the United States can have a regular source of primary care that allows for continuity and coordination of care? Will HMOs and PPOs require their physicians to take responsibility for the health of their enrollee population, or will physicians be content to care only for whoever walks in the door? What is an ideal health delivery system? Different people would have different answers. One vision is a system in which people choose their own primary care providers in small, decentralized, prepaid group practices that would be linked to community hospitals, including specialists' offices providing secondary care. Difficult cases could be referred to the academic tertiary care center in the region. In the primary care practices, teams of health care givers would endeavor to provide medical care to those people seeking attention, and would also concern themselves with the health status of the entire population served by the practice.

REFERENCES

Bodenheimer T. Selective chaos. *Health Affairs Web Exclusive*. 2000;19(4):200.

Claxton G et al. Health benefits in 2006. *Health Affairs Web Exclusive.* 2006;25:w476.

The Committee on the Costs of Medical Care. Editorial. *JAMA*. 1932;99:1950.

Dye NS. Mary Breckinridge, the Frontier Nursing Service and the introduction of nurse-midwifery in the United States. *Bull Hist Med*. 1983;57:485.

Ellwood PM et al. Health maintenance strategy. *Med Care*. 1971;9:291.

Garfield SR. The delivery of medical care. *Sci Am*. 1970;222:15.

Geiger HJ. Community health centers: Health care as an instrument of social change. In: Sidel VW, Sidel R, eds. *Reforming Medicine.* New York, NY: Pantheon Books;1984.

Kepford AE. The Greater Community Association at Creston, Iowa. *Mod Hosp*. 1919;12:342.

Mechanic D. *The Growth of Bureaucratic Medicine.* New York, NY: John Wiley & Sons;1976.

O'Malley AS et al. Health center trends, 1994–2001: What do they portend for the federal growth initiative? *Health Aff*. 2005;24(2):465.

Rittenhouse DR et al. Physician organization and care management in California: From cottage to Kaiser. *Health Aff*. 2004; 23(6):51.

Robinson JC, Casalino LP. Vertical integration and organizational networks in health care. *Health Aff*. 1996;15:7.

Rothman SM. *Woman's Proper Place: A History of Changing Ideals and Practices.* New York, NY: Basic Books;1978.

Rubin HR et al. Patients' ratings of outpatient visits in different practice settings. *JAMA*. 1993;270:835.

Safran DG, Tarlov AR, Rogers WH. Primary care performance in fee-for-service and prepaid health care systems. *JAMA*. 1994;271:1579.

Starr P. *The Social Transformation of American Medicine.* New York, NY: Basic Books;1982.

Stevens R. *In Sickness and in Wealth: American Hospitals in the Twentieth Century.* New York, NY: Basic Books;1989.

Stoeckle JD, Candib LM. The neighborhood health center: Reform ideas of yesterday and today. *N Engl J Med*. 1969;280:1385.